

In the Claims

1           1. A method for reducing oxalate concentrations in an animal wherein said method  
2 comprises administering a composition comprising a material selected from the group  
3 consisting of oxalate-degrading microbes and oxalate-degrading enzymes.

1           2. The method, according to claim 1, wherein said method comprises administration  
2 of oxalate-degrading enzymes.

1           3. The method, according to claim 2, wherein said oxalate-degrading enzymes are  
2 derived from bacteria.

1           4. The method, according to claim 3, wherein said oxalate-degrading enzymes are  
2 derived from bacteria of the group consisting of *Clostridium*, *Pseudomonas*, and oxalobacter.

1           5. The method, according to claim 2, wherein said enzymes are produced  
2 recombinantly.

1           6. The method, according to claim 5, wherein said enzymes are produced  
2 recombinantly in *Escherichia coli*.

1           7. The method, according to claim 2, which comprises administering formyl-CoA  
2 transferase and oxalyl-CoA decarboxylase.

1           8. The method, according to claim 7, wherein said enzymes are produced  
2 recombinantly.

1           9. The method, according to claim 2, wherein said oxalate-degrading enzymes are  
2 expressed in plants which have been transformed with polynucleotides encoding said  
3 oxalate-degrading enzymes.

1           10. The method, according to claim 1, wherein said method comprises administration  
2 of oxalate-degrading microbes.

1           11. The method, according to claim 10, wherein said oxalate-degrading microbes  
2 have been transformed with polynucleotides which encode said oxalate-degrading enzymes.

1           12. The method, according to claim 2, which further comprises administering an  
2 additional factor selected from the group consisting of oxalyl CoA, MgCl<sub>2</sub> and TPP.

1           13. The method, according to claim 10, which comprises administering whole viable  
2 oxalate-degrading microbes.

1           14. The method, according to claim 13, wherein said microbes are *Oxalobacter*  
2 *formigenes*.

1           15. The method, according to claim 13, wherein said microbes are selected from the  
2 group consisting of *Clostridium* and *Pseudomonas*.

1           16. The method, according to claim 13, wherein said microbes colonize the  
2 intestines.

1           17. The method, according to claim 1, which is used to treat a patient whose  
2 intestines have insufficient numbers of oxalate-degrading bacteria.

1           18. The method, according to claim 17, which is used to treat a patient whose natural  
2 intestinal bacteria have been depleted due to treatment with antibiotics.

1           19. The method, according to claim 1, which is used to treat a domesticated animal,  
2           said animal having deficient numbers of oxalate-degrading bacteria.

1           20. The method, according to claim 19, wherein said domesticated animal is selected  
2           from the group consisting of dogs, cats, rabbits, ferrets, guinea pigs, hamsters and gerbils.

1           21. The method, according to claim 19, wherein said domesticated animal is an  
2           agricultural animal.

1           22. The method, according to claim 21, wherein said agricultural animal is selected  
2           from the group consisting of horses, cows and pigs.

1           23. The method, according to claim 19, which is used treat a domesticated animal,  
2           said animal's natural intestinal bacteria having been depleted due to treatment with  
3           antibiotics.

1           24. The method, according to claim 1, wherein said microbe or said enzyme is  
2           formulated to reduce inactivation in the stomach.

1           25. The method, according to claim 24, wherein said formulation comprises a  
2           coating which dissolves preferentially in the small intestine compared to the stomach.

1           26. A composition for reducing oxalate levels in an animal wherein said composition  
2           comprises a material selected from the group consisting of oxalate-degrading microbes and  
3           oxalate-degrading enzymes.

1           27. The composition, according to claim 26, wherein said composition comprises  
2           whole, viable oxalate-degrading bacteria.

1           28. The composition, according to claim 26, wherein said composition comprises  
2 cell lysate of oxalate-degrading bacteria.

1           29. The composition, according to claim 26, wherein said bacteria are *Oxalobacter*  
2 *formigenes*.

1           30. The composition, according to claim 26, wherein said bacteria are selected from  
2 the group consisting of *Clostridium* and *Pseudomonas*.

1           31. The composition, according to claim 26, wherein said composition comprises  
2 oxalate-degrading enzymes.

1           32. The composition, according to claim 31, wherein said enzymes are formyl-CoA  
2 transferase and oxalyl CoA decarboxylase.

1           33. The composition, according to claim 32, which further comprises a compound  
2 selected from the group consisting of oxalyl CoA,  $MgCl_2$ , and TPP.

1           34. The composition, according to claim 26, wherein said composition is formulated  
2 to reduce deactivation in the stomach.

1           35. The composition, according to claim 34, wherein said composition is coated with  
2 a material which preferentially degrades in the small intestine.